

3.4 Creating Factorable Trinomials

Math 10

Creating Factorable Trinomials

Determine all values of b that allow each expression to be factored.

$n^2 + bn + 20$	$\frac{-20}{10 \times 2}$	$\frac{+b}{10+2=12}$	$t^2 + bt - 15$	$\frac{\cdot -15}{-3 \times 5}$	$\frac{+b}{2}$
$b = \pm 9, \pm 12, \pm 21$	20×1	$20+1=21$	$b = \pm 2, \pm 14$	-15×1	-14
$n^2 + 9n + 20$	5×4	$5+4=9$		-5×3	-2
$n^2 - 9n + 20$	-10×-2	-12		-1×15	14
	-20×-1	-21			
	-5×-4	-9			

Determine three values of c that allow each expression to be factored.

$x^2 + 11x + c$	$\frac{\cdot c}{10 \leftarrow}$	$\frac{+11}{1+10}$	$m^2 - 3m + c$	$\frac{\cdot c}{2 \leftarrow}$	$\frac{-3}{-2+1}$
$c = 10, 30, -60$	$30 \leftarrow$	$5+6$	$c = 2, -4, -10$	$-4 \leftarrow$	$-4+1$
	$-60 \leftarrow$	$-4+15$		$-10 \leftarrow$	$-5+2$

Assignment: p.96 #8, 9bcd, 10, 13ac, 15a

